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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/601,781

06/23/2003

Garth H. Bulgrien

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08/19/2004

CNH AMERICAN LLC

INTELLECTUAL PROPERTY LAW DEPARTMENT

INTELLECTUAL PROPERTY LAW DEPARTMENT

NEW HOLLAND, PA 17557

EXAMINER

MCCALL, ERIC SCOTT

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/601,781 | BULGRIEN ET AL. | |
| | Examiner | Art Unit | |
| | Eric S. McCall | 2855 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/21/03</u> . | 6) <input type="checkbox"/> Other: ____. |

**DETECTING CLUTCH SLIPPAGE TO MEASURE DRIVE LINE
TORQUE FOR CLUTCH CONTROL DURING POWER SHIFTS**

FIRST OFFICE ACTION

DRAWINGS

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because Fig. 3 includes the reference character “42” which is not mentioned in the description.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

CLAIMS

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Janasek et al. (6,193,630).

With respect to claim 1, Janasek et al. teach a method for controlling a clutch pressure during a power shift, comprising steps of:

a.) changing a pressure in the clutch over a predetermined first time interval (col. 4, lines 48-50 as defined by the time period of step 118), while calculating a ratio of an input speed on an input side of the clutch to output speed on an output side of the clutch (col. 4, lines 37-39) at predetermined second time intervals (defined by step 116) shorter than the first interval, for determining if the clutch is slipping; and

b.) adjusting a rate of the changing of the pressure as a function of determined clutch slippage (col. 4, lines 48-50).

Art Unit: 2855

With regard to claims 3, 7, and 9, the clutch of Janasek et al. is interpreted as an “off-going clutch” as claimed wherein the pressure therein is decreasing (col. 4, lines 48+).

With regards to claim 6, Janasek et al. teach the subject matter thereof (col. 4, lines 37-41).

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janasek et al. (6,193,630).

With regards to claim 2, Janasek et al. fail to explicitly set forth specific time intervals for the intervals as set forth in claim 1.

However, it would have been obvious to one having ordinary skill in the art to set forth an interval of about 0.1 seconds for the first interval and about 0.01 seconds for the second interval.

The motivation being that the intervals as set forth by Janasek et al. are determined by the algorithm therein whereas the intervals thereof are well known to be on the order as claimed by the Applicant.

With regard to claims 4, 8, and 10, Janasek et al. fail to teach an “on-coming clutch” as claimed.

However, it would have been obvious to one having ordinary skill in the art to use an “on-coming clutch” as claimed as part of the clutch as taught.

The motivation being that an “on-coming clutch” as claimed by the Applicant is needed in order to shift between two gears. In other words, an on-coming clutch works in unison with an off-going clutch to complete a shift.

Allowable Subject Matter

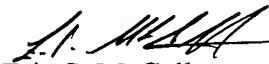
Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because the prior art fails to teach or suggest a second clutch wherein the steps therein are carried out.

RELEVANT ART

The Applicant's attention is directed to the enclosed "PTO-892" form for the prior art made of record and not relied upon but considered pertinent to the state of the art of the Applicant's disclosure.

CONCLUSION

Any inquiry concerning this communication should be directed to Eric S. McCall at telephone number (571) 272-2183.


Eric S. McCall
Primary Examiner
Art Unit 2855
Aug. 17, 2004